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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/348,852	07/07/1999	HIROSHI MURAKAMI	31050.9US01	5848

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EXAMINER	
FERRIS III, FRED O	

ART UNIT	PAPER NUMBER
2128	

DATE MAILED: 09/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/348,852	MURAKAMI ET AL.	
	Examiner	Art Unit	
	Fred Ferris	2128	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 May 2004* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *15-26* is/are allowed.

6)☒ Claim(s) *1-14 and 27-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *06 February 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *05/26/04* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

1. *This office action is in response to applicant's amendment filed on 26 May 2004. Claims 1-30 are now pending in this application. Claims 15-20 were previously allowed. Claims 21-26 have now been allowed in view of applicant's amendment to the claims. Claims 1-14 and 27-30 remain rejected.*

Response to Arguments

2. *Applicant's arguments filed on 26 May 2004 have been fully considered.*

Regarding applicant's response to 35 U.S.C. 103(a) rejections: The examiner withdraws the 103(a) rejection of claims 21-26 in view of applicant's amendment to the claims. However, Applicant's arguments with respect to claims 1-14 and 27-30 have been fully considered but found to be non-persuasive for the following reasons. First, applicants have argued that Tagami only discloses a single vehicle group and hence does not suggest a second vehicle group. The examiner has asserted that, as cited in the previous office action, Tagami discloses a shared vehicle system that divides "users in groups" consisting of a first and second group (G1 and G2). (See column 4, line 37-42, Fig. 3) Applicants are correct in pointing out that these groups involve the users. However, Tagami further discloses that the availability of the vehicles is further divided into groupings based on battery charge and user requirements. (i.e. grouped by those vehicles that are fully charged and are hence available to a particular user, and those that are not: applicant's specification refers to this feature as state of charge (SOC) pages 6-12) Tagami, therefor treats the vehicles as separate and distinct groups

based on their availability to the user and hence renders obvious the claimed limitations relating to vehicle availability from a second vehicle group. (see CL5-L63 to CL6-L15) Second, applicants argue that Tagami does not disclose generating a relocation request or ports with geographically remote locations relative to each other. The examiner asserts that applicants appear to be engaging in piecemeal analysis since, as cited in the previous office action, Klien (not Tagami) discloses vehicle relocation and geographically remote (port) locations while Bunn (not Tagami) discloses allocating a vehicle responsive to a user request. One cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See In re Keller, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); In re Merck & Co., 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In this case, it is the combination of these elements disclosed by Tagami, Bunn, and Klien that renders the claimed limitations obvious in view of the prior art. Accordingly, the examiner maintains the rejection of claims 1-14 and 27-30 as cited below under 103(a) rejections.

Regarding applicant's response to Office Notice: The Applicant is entitled to traverse the official notice according to MPEP § 2144.03. However, MPEP § 2144.03 further states "See also In re Boon, 439 F.2d 724, 169 USPQ 231 (CCPA 1971) (a challenge to the taking of judicial notice must contain adequate information or argument to create on its face a reasonable doubt regarding the circumstances justifying the judicial notice)." Specifically, In re Boon, 169 USPQ 231, 234 states "as we held in Ahlert, an applicant must be given the opportunity to challenge either the correctness of the fact asserted or the notoriety or repute of the reference cited in support of the

assertion. We did not mean to imply by this statement that a bald challenge, with nothing more, would be all that was needed". Further note that 37 CFR § 1.671(c)(3) states "Judicial notice means official notice". Thus, a traversal by the Applicant that is merely "a bald challenge, with nothing more" will be given very little weight. In this case, applicants have merely argued that they know of "no prior art" that teaches tow bar or bike carrier use in a shared vehicle relocation system. The examiner finds this attempt to traverse inadequate for the following reasons. First, the prior art of record already establishes that the well-known and intended use of tow bars and bike carries is for the purpose of vehicle relocation. Specifically, relocating one vehicle with another. (See U.S. 5,066,034 issued to Carr (summary), and U.S. 5,579,973 issued to Taft (summary), both of record). This prior art is already of record and was used in previous obviousness rejections (see first office action dated 3 October 2002). However, in the interest of compact prosecution, and to simply the issues in the case, the examiner has given official notice that the use of tow bars, hitch receptacles, and bike carriers, is very well known in the art as a method for relocating vehicles using a single driver. In support of this assertion the examiner further submits a data sheet from Hydralift, one of many manufacturers of bike carriers and tow bars, showing numerous configurations of bike carriers and tow bars being used for purposes of vehicle relocation using a single driver. One configuration shows both a tow bar and bike carrier used simultaneously to allow a single driver to relocate both vehicles. (See Hydralift – The Art of Lifting) This technique is also disclosed in Taft at column 3, line 30. The examiner therefor maintains the Official Notice. The examiner also notes that the rejection of the claims 1-

14 and 21-30 is based on obviousness, hence, it would have been obvious to one skilled in the art use these well-known techniques as a method of vehicle relocation in a vehicle sharing system as cited below under the 35 USC 103(a) rejections.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 1-14 and 27-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,812,070 issued to Tagami et al, in view of U.S. patent 6,240,365 issued to Bunn, in further view of U.S. patent number 5,726,885 issued to Klein et al, and in further view of Official Notice.

Independent claims 1, 8, 27 and 29 are drawn to:
A **vehicle sharing system** with:
Multiple **ports at remote locations** (vehicle search group (VSG))
User **interface terminal(s)** at each **port(s)** (fleet requests)

Computer system user (communication) interface:
User request defining first VSG
Allocating a vehicle from VSG responsive to request
Defining a second VSG if first not available
Selecting vehicle for allocation from second VSG
Generating vehicle relocation request (1st to 2nd port)
Transport device for vehicles (tow hitch/bar)

VSG: **Parking facility** at ports
Vehicles due to arrive
Tow hitch for relocation by single driver & **cycle w carrier bracket**
Attendant **display device**

Regarding independent claims 1, 8, 27 and 29: Tagami discloses a shared vehicle rental system incorporating multiple vehicle groups (VSG's), user terminals, and computer system for resource management and servicing user requests. For example, at column 2, line 24 Tagami recites:

"According to the present invention, there is also provided a **shared vehicle rental system** comprising a plurality of motor vehicles having respective **communication units**, a parking area for a plurality of users to rent motor vehicles therefrom and to return motor vehicles thereto, and a **control center** for supervising the motor vehicles through the communication units. The control center has means for **dividing the users into groups** depending on a **usage time zone** in which the users use the motor vehicles or a direction in which the users move with respect to the parking area, registering the users in the groups, and supervising the motor vehicles and the parking area based on **registration information** of the users and usage **information of the users** which is received through the communication units."

At column 3, line 23 Tagami further recites:

"The control center may recognize the positions of the motor vehicles at all times based on information from GPSs (Global Positioning Systems) carried on the motor vehicles."

At column 4, line 37 Tagami also recites:

"The **control center MC** has a **communication installation** A for transmitting signals to and receiving signals from the communication units 23 of the

respective motor vehicles C. The control center MC does various activities including recruiting users of the **shared vehicle rental system** and registering entrants as registered **users in groups** as shown in FIG. 3. FIG. 3 shows **first** and **second groups G1, G2** of registered users."

The examiner notes that the term "vehicle search group VSG" is merely defined as the set of vehicles that may be allocated to a user (specification page 6, line 6) and has, hence, interpreted the term to be functionally equivalent to the parked available motor vehicles disclosed by Tagami. For example, at column 5, line 47 Tagami recites:

"The computer 60 calls registration information recorded in the control center MC, using the password, and compares the registration information from the control center MC with the registration information recorded on the inserted IC card in a step S2. If the compared pieces of registration information agree with each other, then the computer 60 selects one of the **available motor vehicles C** parked in the storage area 41, and transmits the **registration information** and a leave command from the first communication pole 42 to the **selected motor vehicle C** in a step S3."

(Also see: Abstract, Summary, CL4-L37-65, CL5-L40-63, CL6-L25, Figs. 4-6)

Tagami does not explicitly teach allocating a vehicle responsive to a user request. (although the examiner believes this process would inherently be part of the information registering process disclosed above)

Bunn discloses allocating a vehicle responsive to a user request.

For example, at column 9, line 22 Bun recites:

"when the renter **requests** up-dated information, the **local controller** determines whether this is a point of sale request 734. If this is a point of sale request then the local controller initiates a call to the HQ computer to up-date information 736. The information, once up-dated on the **local controller**, is displayed 738 whereby the customer may then select the required service via the keypad 740. Alternately the customer may select the HQ computer to call the service provider."

(also see: Abstract, Summary of Invention, CL3-L2-CL4-L33, 3, 5-5B)

Tagami further does not explicitly disclose (although the examiner believes it to be inherent) determining vehicle selection, vehicles due to arrive, and vehicle relocation, (i.e. fleet resource management) and return ports at remote locations.

Klein discloses a ***vehicle sharing*** *(hiring) system with numerous* ***collection*** *and* ***return points (ports)*** *at* ***remote locations*** *(****parking facilities****) that contain a* ***pool of vehicles (VSG)****. The Klien system includes a computer system with* ***user interface****,* ***display device*** *and software programmed with an* ***intelligent fleet resource management algorithm*** *for determining* ***vehicle selection, vehicles due to arrive,*** *and* ***vehicle relocation****. (Background and Summary of Invention, especially CL1-L6-21, CL2-L33-63, CL3-L12, 21, 30, 34, 41, 45 55, CL5-L1, 29, 58, CL6-L46, CL7-L18, CL8-27, Figs. 1-3)*

The examiner further notes that, in addition being disclosed in the prior art, the limitations relating to tracking a vehicles arrival, allocation status, parking port, etc. relate to simple techniques for resource allocation and capacity planning (i.e. resource management) that are very well known in the art and commonly practiced by vehicle rental and fleet management systems. Per independent claims 27 and 29: Neither Tagami, Bunn, nor Klein explicitly disclose the use of tow bars, hitch receptacles, or bike carriers. Official Notice is taken that the use of tow bars, hitch receptacles, and bike carriers, is very well known in the art and has long been practiced by rental car companies as a method for relocating vehicles using a single driver.

It would have been obvious to one of ordinary skill in this art at the time the claimed invention was made, to modify the teachings of Tagami relating to a shared

vehicle rental system incorporating multiple vehicle groups, user terminals, and computer system, with the teachings of Bunn relating to allocating a vehicle responsive to a user request, and to further modify the teachings of Tagami with the teachings of Klein relating to fleet resource management and return ports at remote locations, and to further incorporate the well known use to tow bars and hitch receptacles, to realize the claimed invention. An obvious motivation exists since, as referenced by prior art, a long felt need exists for an efficient and cost effective way of making vehicles available (Klein, CL8-L50), and because it very well known in the art to use tow bars, hitch receptacles, and bike carriers as a method for relocating vehicles using a single driver.

Regarding dependent claims 2-7, 9-14, 28,and 30: This group of claims in merely drawn to limitations relating to interface terminals, vehicle requests, vehicle/user groups, relocation, and allocation and are hence rejected using the same reasoning as previously cited above. Specifically relating to claims 4-6, 11, 12, and 26: Neither Tagami, Bunn, nor Klein explicitly disclose the use of tow bars, hitch receptacles, or bike carriers. Official Notice is taken that the use of tow bars, hitch receptacles, and bike carriers, is very well known in the art and has long been practiced by rental car companies as a method for relocating vehicles using a single driver.

Allowable Subject Matter

4. Claims 15-20 and 21-26 use "means for" and "step for" language respectively and are given deference in view of In re Donaldson and interpreted in view of 35 U.S.C. § 112 paragraph 6. The "means for" language (claims 15-20) and "step for" language (claims 21-26) and the limitations related thereto are interpreted within the scope of

enablement as provided within the relative embodiment provided within applicant's specification. In particular, the prior art does not disclose the specific steps outlined in applicants specification relating to the ***"means for"*** *relocating vehicles (independent claim 15) from port to port* ***as determined by the computer system after searching the VSG for sufficient SOC to meet user's needs*** *as specifically disclosed in the specification on page 12, line 10 to page 16, line 24, Figs. 3, 4, especially the arrangement of elements in Figs. 14, 15) The examiner has interpreted the "means for" language as means plus function where the relocating "means" includes the "function" of the determination by the computer system that additional vehicles be relocated. In accordance with MPEP section 2106 the examiner has given the limitations their broadest reasonable interpretation consistent with all corresponding structures or materials described in the specification and their equivalents including the manner in which the claimed functions are performed. In this case, the prior art does not disclose the arrangement of elements and functions performed as embodied in applicant's specification and disclosed on pages 12, line 6 to page 16, line 24 (searching VSG), and pages 25-30 (relocation, Port facility), and in Figs. 2, 3, 4, 14, and 15. (Especially: specification page 25, lines 4-8, and process steps shown in Figure 2 (40)) The examiner has not found the physical relocation methods (i.e. tow bar, bike carriers, hitches) disclosed in applicant's specification to be novel over the prior art. Claims 16-20 are allowable as being depend from claim 15. The prior art further does not disclose the specific sequence of events outlined in applicant's specification relating to the* ***"steps for" defining a first vehicle search group (VSG)*** *(independent claim 21) for a*

***first port**, and a **second VSG** for a **second port** relative to vehicle location, time, SOC, and user parameters as also disclosed in applicant's specification on page 12, line 10 to page 16, line 24, Figs. 3, 4, especially the arrangement of elements in Figs. 14, 15). Claims 22-26 are allowable as being dependent from claim 21.*

Conclusion

*5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).*

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure, careful consideration should be given prior to applicant's response to this Office Action.

U.S. Patent 5,572,430 issued to Murakami et al teaches shared vehicle deployment and reallocation.

U.S. Patent 6,253,980 issued to Murakami et al teaches shared vehicle system and carrying second vehicle.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fred Ferris whose telephone number is 703-305-9670 and whose normal working hours are 8:30am to 5:00pm Monday to Friday.
Any inquiry of a general nature relating to the status of this application should be directed to the group receptionist whose telephone number is 703-305-3900.
The Official Fax Numbers are:

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